Early Ergonomic Intervention, A Cost Containment Solution

ADDRESSING ROOT CAUSES EARLY IS THE KEY TO EFFECTIVE COST CONTAINMENT

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A WHITE PAPER
This white paper is intended to fuel a discourse among employers, providers and payors to explore the major trends facing the workers’ compensation industry, and the different strategies each constituency might employ to address costs, improve outcomes and promote a healthier workforce.

OHS, December, 2012
**Introduction:**

Much of the medical and ergonomic research on Cumulative Trauma Disorders is focused on Medical and Disability cost savings through administrative remedies. But these efforts rarely strike at the root variables of the cost equation – How the employee injured themselves in the first place. Why do seemingly innocuous injuries like tendonitis, muscle strains, and Carpal Tunnel Syndrome wind up costing so much in medical and indemnity? And more importantly, what can be done to prevent these costs within the workers’ compensation system? The answer lies much farther upstream than current and past reform measures address. The answer lies in addressing the root cause of the claim early in the claims administration process.

**The Problem**

A recent study published in *The American Journal of Industrial Medicine* sheds some light on the problem. In this study, the authors found some alarming statistics in reviewing the carpal tunnel cases of over 13,000 subjects. They found that 63% of claimants with a carpal tunnel syndrome diagnosis went off work on paid total temporary disability. Of those that went off on paid disability, about half were off for greater than 3 months and a quarter of them were off on paid disability for greater than a year!! We all know how quickly those disability payments can add up - frustrating employers, insurers, and adjustors alike. It's no wonder then that the time off work and concomitant disability costs of cumulative trauma disorders such as Carpal Tunnel Syndrome dwarf the next leading injury event or exposure (Figure 1).
The Good News

The good news is that the research shows that employers have at their disposal a powerful means by which to contain or eliminate these costs from the claims. Early intervention at the work site to remove those ergonomic factors causing the injury, has been shown to dramatically reduce the incidence of short term disability. In fact, with EARLY intervention in these potentially costly claims, the incidence of paid disability can be reduced by weeks and the medical costs of claims can be reduced by potentially thousands of dollars. The key is catching the problem and intervening with ergonomic remedies early.

By all accounts, it is clear that certain adverse work conditions can lead to musculoskeletal conditions such as tendonitis, overuse syndromes, lower back injuries, and carpal tunnel syndrome. Typically, once a claim is made, the employee will continue to work in the harmful work environment/station until the injury becomes so bad that the physician has no choice but to remove the worker from work so they can recover. Enter the disability expense compounding the medical costs. This is also the juncture at which all the other dramatic cost drivers to the claim (surgery, “skin and contents” claims, litigation, delayed recovery, etc.) suddenly become possible and in some cases likely. The research shows that early intervention reduces the overall expense because, quite simply, if you remove those factors that are causing the injury at the onset of the claim, the worker can begin recovering right away – even while they’re still working.
at their job and being productive. It makes sense when you think about it. We all know the old joke about when you tell a doctor “It hurts when I raise my arm.” What’s the obvious response of the doctor? “Well don’t raise your arm!!” While this oversimplifies the ergonomic issues that can cause musculoskeletal disorders (MSDs) such as carpal tunnel syndrome, lower back injuries, and upper extremity disorders, it still bears a lot of truth. Remove the activities or stimuli that cause the injury and the injury can heal. Fail to remove those activities or stimuli and the injury won’t heal. It stands to reason then that if ergonomic solutions aren’t implemented right away, injured claimants will not heal and per claim cost will rise.

A longitudinal case study conducted from 2002-2011 with a medium sized, insured firm, demonstrated that such early intervention with ergonomics can dramatically reduce the experience modification (Ex Mod) factor over time (Acuna, Patterson, 2012). In this case the insured’s Ex Mod dropped from 145% to 79% over the first years of implementation, then remained in the high 70% range on a year over year basis thereafter (Figure 2). As of the last year of the study (2011), they had experienced an overall return on investment of 250%.

The jury is NOT out. THE SCIENCE HAS RETURNED A CLEAR VERDICT WHICH INDICATES THAT EARLY INTERVENTION INCORPORATING ERGONOMIC RISK REDUCTION AT THE WORK PLACE IS THE KEY TO COST CONTAINMENT.
CONCLUSION

So then the real question is “Why don’t we intervene on day one with appropriate risk reduction solutions with ALL MSD claims like tendonitis, back injuries, overuse syndromes, and carpal tunnel syndrome?” According to the science surrounding these costly injuries, there is no support for waiting until it’s too late to provide ergonomic support. Typically in the workers’ compensation arena, we wait until a physician orders the ergonomics intervention before anything is done. The problem is, this can occur on the first visit (best case scenario for a speedy recovery) or it may occur sometime down the line three, six, twelve months later - or sometimes never - after the damage has already gotten too bad for the employee to recover without being off work on paid disability. It is clear from the research that the best strategy to keep workers productive and on the job (and off the disability payroll) is to intervene early with every single MSD claim. Imagine a case load of zero lost-time MSD claims. This is possible with early intervention.

EARLY INTERVENTION IS POSSIBLE AND SIMPLE. IN FACT, EARLY INTERVENTION IS BUILT INTO THE ERGOMED SYSTEM PROVIDED BY OHS. IMMEDIATE RISK REDUCTION ON DAY ONE OF A CLAIM USING THE ERGOMED APPROACH WILL REDUCE DISABILITY, REDUCE MEDICAL COSTS, AND KEEP EMPLOYERS HAPPY AND PROFITABLE.
About the Author
Bob Patterson, M.P.T., M.B.A., C.A.E. earned a Master’s degree in Physical Therapy (M.P.T.) in 1993 from Mount Saint Mary’s College, CA. This followed a Bachelor of Science in Kinesiology from UCLA in 1991. He completed his Masters of Business Administration (M.B.A.) at California Lutheran University in 2010. His specialties in all phases of his didactic training involved in-depth analysis of and intervention with biomechanics, occupational health and injury prevention, and health care management.

Mr. Patterson’s experience in the field of wellness, injury prevention and ergonomics began shortly after his licensure as a physical therapist in 1993. He founded ALA Ergonomic Resources through Orthopaedic Hospital in downtown, Los Angeles. This organization was instrumental in containing the costs of scores of heavy and medium industrial clients in Southern California. In 1997, he formed Omega Health Systems (OHS). This ergonomic research, consulting, software, productivity and cost containment organization conducts research and provides solutions for workers’ compensation payors and employers alike to contain costs and optimize productivity via injury prevention services, streamlined case management, web applications, and the disciplined and scientific application of ergonomic and behavioral science principles. Some of OHS’ clients include Autodesk, Amgen, Bayer, Bloomberg, City of Los Angeles, Cisco, County of Los Angeles, Foster Farms, HealthNet, Marathon Oil, MasterCard, Progressive Insurance, Nestle, Skyworks, State of California, and Twitter to name a few. Mr. Patterson’s expertise in the disciplines of the health sciences, occupational health and injury prevention, research, and healthcare management has established OHS as an enduring and leading player in the health, ergonomics, and injury prevention fields nationally.

Endnotes
3, 4 Arnetz, Bengt B., MD, PhD, Sjogren, Berit, Rydehn, Berit and Roland Meisel, BA. (2003). Early Workplace Intervention for Employees With Musculoskeletal-Related Absenteeism: A Prospective Controlled Intervention Study. JOEM, 45(5): 499-506
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We offer a comprehensive suite of ergonomic services to promote the health of the workforce and to unleash the full power of human potential.

Our workers’ compensation practice focuses on reducing the cost and improving the outcome of the treatment of musculoskeletal disorders.